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EXAMINER
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YAMNITZKY, MARIE ROSE

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/643,413

Applicant(s)

THOMPSON ET AL.

Examiner

Marie R. Yamnitzky

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003 and 28 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-90 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date rec'd 28 Nov 2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. Claims 1-90 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The possibilities for  $R_3$  as required for claims 1-3, 6, 8, 9, 12-34, 37-39, 41-48, 50, 52-64, 68, 69, 72, 73 and 76-90 are not clear.

Where  $R_3$  is defined in terms of a substituent having a particular Hammett value, the scope of  $R_3$  is indefinite because the term "about" allows for some variation. It is not clear what substituents/Hammett values are excluded. For example, it is not clear if a substituent having a Hammett value of  $-0.16$  and/or a substituent having a Hammett value of  $0.06$  are necessarily excluded by the language of present claim 1 and similar claims since  $-0.16$  could be considered to be about  $-0.17$  or about  $-0.15$ , and  $0.06$  could be considered to be about  $0.05$  or about  $0.07$ .

Where  $R_3$  is defined in terms of a substituent having a particular Hammett value and also defined in terms of a Markush group, as in present claim 1 and similar claims, the scope of  $R_3$  is unclear because the Markush group includes members which might be excluded by the Hammett value limitation, depending upon interpretation of the term "about". For example, fluorine and a methyl group are within the scope of the Markush group set forth in claim 1, but have Hammett values which might be excluded by the ranges set forth for Hammett values.

The scope of  $R_3$  as defined in terms of a Markush group, as in present claim 1 and similar claims, is also unclear because it is not clear if "n" in  $C_nF_{2n+1}$  is limited to the definition of n set forth in the claims. The definition of n appears to more appropriately define only n as pertains to the monoanionic/ancillary ligand. (If there is no limit on "n" in  $C_nF_{2n+1}$ , the examiner suggests

using the term “perfluoroalkyl” instead of  $C_nF_{2n+1}$ . The examiner also notes that the Markush group separately sets forth  $CF_3$ , which is  $C_nF_{2n+1}$  where  $n$  is 1.)

The scope of aryl and heteroaryl groups as set forth in the Markush group in claim 1 and similar claims is not clear. It is uncertain if any aryl and heteroaryl group may be used, or if only aryl or heteroaryl groups substituted with “halogens... $PO_3R$ ” may be used. The scope is further unclear in claims 16, 33, 47 and 59, where a comma instead of a semicolon is used after “ $PO_3R$ ”.

Proper antecedent basis is lacking for “[t]he composition” as recited in the preamble of claims 2-15. Each of these claims depends directly or ultimately from claim 1, which is drawn to an “emissive material”.

Proper antecedent basis is lacking for “the electron withdrawing groups” as recited in claims 8 and 72, and “the electron donating groups” as recited in claims 12 and 76. While some of the possibilities set forth in claims 1 and 68 inherently are one of these types of groups, the quoted terminology is not used in claim 1, from which claims 8 and 12 directly depend, or in claim 68, from which claims 72 and 76 directly depend.

Line 3 of claims 8 and 72 sets forth “C-CR”. It is not clear if each of the two carbons is bonded to two hydrogens, or if a triple bond should be shown (as in the third line of the Markush group in claim 1).

The limitations imposed by the last four lines in claim 16 and similar claims are not clear given the earlier definitions of  $R_3$  and  $R_5$ . The Markush group allows both of these variables to represent H, which is neither an electron withdrawing group nor an electron donating group. The

last four lines appear to require R<sub>4</sub> to represent an electron withdrawing group and, at the same time, an electron donating group, if both of R<sub>3</sub> and R<sub>5</sub> represent H. This is impossible.

Claims 62 and 63 are confusing as dependent from claim 60. It is not clear how more than one of R<sub>3</sub> and R<sub>5</sub> may be CF<sub>3</sub> as allowed by claims 62 and 63 if at least one of R<sub>3</sub> and R<sub>5</sub> is CN as required by claim 60.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 8, 12, 13, 15-17, 19, 21-24, 29, 31, 33-36, 41-43, 47, 48, 52-55, 59, 65 and 66 are rejected under 35 U.S.C. 102(e) as being anticipated by Lecloux et al. (US 2003/0108771 A1).

Lecloux's application claims priority of a provisional application filed November 7, 2001. The provisional application provides support for the subject matter relied upon in rejecting the claims under 35 U.S.C. 102(e).

Lecloux et al. disclose platinum compounds for use as emissive materials in organic light emitting devices. For example, see paragraphs [0001], [0006]-[0040], [0044]-[0045], [0048]-[0071], [0079]-[0080] and [0109]-[0114], with particular reference to complexes 1-g, 1-h and

1-m as defined in Table 1. Each of these complexes meets the limitations of some of the present claims.

Complex 1-g, for example, is an emissive material having the structure set forth in present claim 1 wherein each of  $R_3$  and  $R_5$  is  $CF_3$ , which is an electron withdrawing group having a Hammett value of 0.54 in the  $R_3$  position, each of  $R_2$ ,  $R_4$ ,  $R'_3$ ,  $R'_4$  and  $R'_6$  is H,  $R'_5$  is an alkyl group, which is an electron donating group, M is Pt, m is 1, n is 1, and X-Y is a non carbon coordinating monoanionic ligand. This complex meets the limitations of an emissive material/composition as defined in present claims 1-5, 8, 12, 13, 15, 24, 29, 65 and 66, and the limitations of the composition required for the light emitting device as claimed in present claims 33-36, 41-43 and 59.

Complex 1-h, is an emissive material having the structure set forth in present claim 1 wherein  $R_3$  is  $CF_3$ , which is an electron withdrawing group having a Hammett value of 0.54, each of  $R_2$ ,  $R_4$ ,  $R_5$ ,  $R'_3$ ,  $R'_5$  and  $R'_6$  is H,  $R'_4$  is OR where R is an alkyl group, which is an electron donating group, M is Pt, m is 1, n is 1, and X-Y is a non carbon coordinating monoanionic ligand. This complex meets the limitations of an emissive material/composition as defined in present claims 1-3, 5, 8, 12, 13, 15-17, 19, 21-24, 29, 31, 65 and 66, and the limitations of the composition required for the light emitting device as claimed in present claims 33, 34, 36, 41-43, 47, 48, 52-55 and 59.

4. Claims 1-9, 11-17, 19, 21-24, 29-31, 33-39, 41-48, 52-54, 56-59, 64-66, 68-72, 76-78, 88 and 89 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamatani et al. (US 2003/0059646 A1).

Kamatani's application claims the benefit of an earlier filed international application. The earlier filed international application designates the U.S. but was not published in English (WO 02/45466). Accordingly, the 102(e) date for this published application is February 12, 2002.

Kamatani et al. disclose metal coordination compounds for use as emissive materials in organic light emitting devices. See the whole published application. In particular, see paragraphs [0038]-[0060], [0074]-[0077], [0082], and specific compounds No. 445, 495, 519, 567, 584 and 872. Note that the specific compounds referenced herein are merely exemplary of compounds meeting the limitations of one or more of the present claims. Kamatani et al. disclose compounds other than the referenced compounds which also meet the claim limitations.

Kamatani's compound No. 445 is an emissive material having the structure set forth in present claim 1 wherein  $R_3$  is an alkyl (ethyl) group, which is an electron donating group having a Hammett value of  $-0.15$ , each of  $R_2$ ,  $R_4$ ,  $R_5$  and  $R'_3$  through  $R'_6$  is H, M is Ir, m is 2, n is 1, and X-Y is a non carbon coordinating monoanionic ligand. Kamatani's compound No. 445 meets the limitations of an emissive material/composition defined by present claims 1, 2, 8 (noting that while electron withdrawing groups are limited by claim 8, the emissive material is not required to comprise an electron withdrawing group), 9 and 11-14, and the limitations of the composition for the light emitting device as claimed in present claims 33, 39, 41, 42 and 44.

Kamatani's compound No. 495 is an emissive material having the structure set forth in present claim 1 wherein  $R_3$  is  $CF_3$ , which is an electron withdrawing group having a Hammett value of 0.54, each of  $R_2$ ,  $R_4$ ,  $R_5$  and  $R'_3$  through  $R'_6$  is H, M is Ir, m is 2, n is 1, and X-Y is a non carbon coordinating monoanionic ligand. Kamatani's compound No. 495 meets the limitations of an emissive material/composition defined by present claims 1-3, 5, 8, 12-14, 24, 29, 65 and 66, and the limitations of the composition for the light emitting device as claimed in present claims 33, 34, 36, 41, 42, 44, 45 and 59. Kamatani's compound No. 495 is the same as Example 7 in Table 1 (page 40) of the present specification. Therefore, it is reasonable to expect that a device according to Kamatani et al. utilizing compound No. 495 as the emissive material will inherently meet the limitations of present claim 45.

Kamatani's compound No. 519 is an emissive material having the structure set forth in present claim 1 wherein  $R_3$  is  $CF_3$ , which is an electron withdrawing group having a Hammett value of 0.54,  $R_4$  is F, which is an electron withdrawing group,  $R'_4$  is an alkyl (methyl) group, which is an electron donating group, each of  $R_2$ ,  $R_5$ ,  $R'_3$ ,  $R'_5$  and  $R'_6$  is H, M is Ir, m is 2, n is 1, and X-Y is a non carbon coordinating monoanionic ligand. Kamatani's compound No. 519 meets the limitations of an emissive material/composition defined by present claims 1, 3, 5, 6, 8, 12-14, 16, 17, 19, 21-24, 29-31, and 64-66, and the limitations of the composition for the light emitting device as claimed in present claims 33, 34, 36, 41, 42, 44-47, 48, 52-54 and 56-59. Compared to Kamatani's compound No. 495, Kamatani's compound No. 519 has an additional electron withdrawing group on the phenyl ring and electron donating group on the pyridine ring. Based on the predicted effect on emission wavelength of these additional substituents as taught



in the present specification, it is reasonable to expect that a device according to Kamatani et al. utilizing compound No. 519 as the emissive material will inherently meet the limitations of present claims 45, 46, 57 and 58, and that compound No. 519 will have a hypsochromic shift of at least 40 nm compared to unsubstituted  $\text{Ir}(\text{ppy})_2(\text{acac})$  as required by present claim 64.

Kamatani's compound No. 567 is an emissive material having the structure set forth in present claim 1 wherein each of  $\text{R}_3$  and  $\text{R}_5$  is  $\text{CF}_3$ , which is an electron withdrawing group having a Hammett value of 0.54 in the  $\text{R}_3$  position, each of  $\text{R}_2$ ,  $\text{R}_4$  and  $\text{R}'_3$  through  $\text{R}'_6$  is H, M is Ir, m is 2, n is 1, and X-Y is a non carbon coordinating monoanionic ligand. Kamatani's compound No. 567 meets the limitations of an emissive material/composition defined by present claims 1-5, 8, 12-14, 24, 29 and 64-66, and the limitations of the composition for the light emitting device as claimed in present claims 33-36, 41, 42, 44-46 and 59. Kamatani's compound No. 567 is the same as Example 1 in Table 1 (page 40) of the present specification. Therefore, it is reasonable to expect that a device according to Kamatani et al. utilizing compound No. 567 as the emissive material will inherently meet the limitations of present claims 45 and 46, and the compound inherently meets the hypsochromic shift limitation of present claim 64.

Kamatani's compound No. 584 is an emissive material having the structure set forth in present claim 1 wherein each of  $\text{R}_2$  through  $\text{R}_5$  is F, which is an electron withdrawing group having a Hammett value of 0.06 in the  $\text{R}_3$  position, each of  $\text{R}'_3$ ,  $\text{R}'_4$ , and  $\text{R}'_6$  is H,  $\text{R}'_5$  is an alkyl group, which is an electron donating group, M is Ir, m is 2, n is 1, and X-Y is a non carbon coordinating monoanionic ligand. Subject to clarification regarding the limitations of  $\text{R}_3$  as set forth in the present independent claims, Kamatani's compound No. 584 meets the limitations of

an emissive material/composition defined by present claims 1, 3-8, 12-14, 64, 68-72 and 76-78, and the limitations of the composition for the light emitting device as claimed in present claims 33-38, 41, 42, 44-46, 88 and 89. Based on the electron withdrawing properties of the fluorines on the phenyl ring, it is reasonable to expect that a device according to Kamatani et al. utilizing compound No. 584 as the emissive material will inherently meet the limitations of present claims 45 and 46, and that compound No. 584 will have a hypsochromic shift of at least 40 nm compared to unsubstituted Ir(ppy)<sub>2</sub>(pic) as required by present claim 64.

Kamatani's compound No. 872 is an emissive material having the structure set forth in present claim 1 wherein R<sub>3</sub> is CF<sub>3</sub>, which is an electron withdrawing group having a Hammett value of 0.54, R<sub>4</sub> is F, which is an electron withdrawing group, each of R<sub>2</sub>, R<sub>5</sub> and R'<sub>3</sub> through R'<sub>6</sub> is H, M is Pt, m is 1, n is 1, and X-Y is a non carbon coordinating monoanionic ligand.

Kamatani's compound No. 872 meets the limitations of an emissive material/composition defined by present claims 1, 3, 5, 6, 8, 12, 13, 15, 24, 29, 30 and 64-66, and the limitations of the composition for the light emitting device as claimed in present claims 33, 34, 36, 41-43, 45, 46 and 59. Based on the electron withdrawing properties of the fluorine and trifluoromethyl group on the phenyl ring, it is reasonable to expect that a device according to Kamatani et al. utilizing compound No. 872 as the emissive material will inherently meet the limitations of present claims 45 and 46, and that compound No. 872 will have a hypsochromic shift of at least 40 nm compared to the unsubstituted compound as required by present claim 64.

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-24, 29-31, 33-59 and 64-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamatani et al. as applied to claims 1-9, 11-17, 19, 21-24, 29-31, 33-39, 41-48, 52-54, 56-59, 64-66, 68-72, 76-78, 88 and 89 above, and for the further reasons set forth below.

Kamatani et al. disclose species within the scope of the present claims as noted in the rejection under 35 U.S.C. 102(e), but do not disclose every species within the scope of the present claims. In particular, Kamatani et al. do not disclose specific compounds meeting the limitations of present claims 10, 18, 20, 40, 49-51, 55, 67, 73-75, 79-87 and 90.

Based on Kamatani's disclosure as a whole, one of ordinary skill in the art at the time of the invention would have recognized that metal compounds such as iridium or platinum compounds having one or more phenylpyridine ligands substituted with electron withdrawing substituents such as  $\text{CF}_3$  and/or F, and/or substituted with electron donating substituents such as alkyl groups, are light emissive materials suitable for use in a light emitting device. It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to make compounds similar in structure to those disclosed by Kamatani et al. in order to provide a variety of compounds suitable for use as an emissive material in an organic light emitting device.

One of ordinary skill in the art would have reasonably expected, for example, that phenylpyridine ligands substituted with various combinations of substituents selected from F, CF<sub>3</sub> and alkyl groups could be used to make light emissive iridium or platinum compounds suitable for use in an organic light emitting device.

7. Claims 1-8, 13, 14, 24, 29, 30, 33-38, 42, 44, 59, 65 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grushin et al. (US 2002/0121638 A1).

Grushin's application claims priority of a provisional application filed June 30, 2000. The provisional application provides support for the subject matter relied upon in rejecting the claims under 35 U.S.C. 103(a).

Grushin et al. disclose iridium compounds for use as emissive materials in organic light emitting devices. For example, see paragraphs [0008]-[0021], [0031]-[0042], compounds 1-e, 1-f and 1-k in Table 1, and formulae (IV) and (VI) in paragraph [0049]. Compounds 1-e, 1-f and 1-k are similar to compounds represented by the structure set forth in present claim 1. These prior art compounds have CF<sub>3</sub> at the position corresponding to R<sub>3</sub>, which is an electron withdrawing group having a Hammett value of 0.54, and have H at the position correspond to each of R<sub>2</sub>, R<sub>4</sub>, R<sub>5</sub>, R'<sub>3</sub>, R'<sub>4</sub> and R'<sub>6</sub>. Compounds 1-e and 1-k each have an electron withdrawing group at the R'<sub>5</sub> position, and compound 1-f has H at this position.

Compounds 1-e, 1-f and 1-k differ from the compounds required by the rejected claims in that the prior art compounds have three substituted phenylpyridine ligands and no non carbon coordinating monoanionic ligand. However, Grushin et al. teach that the ligands need not be

identical, and that a non carbon coordinating monoanionic ligand may be included in the compound. Formulae (IV) and (VI) represent iridium compounds having two substituted phenylpyridine ligands and one non carbon coordinating monoanionic ligand.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to make iridium compounds similar to the specific iridium compounds disclosed by Grushin et al. in order to make a variety of compounds suitable for use as an emissive material in an organic light emitting device. One of ordinary skill in the art would have reasonably expected that compounds similar to 1-e, 1-f or 1-k, having one of the substituted phenylpyridine ligands replaced by a non carbon coordination monoanionic ligand as in formula (IV) or (VI), would be light emissive and could be used in an organic light emitting device.

Given Grushin's disclosure, it also would have been *prima facie* obvious to provide a fluorine or fluorinated substituent at one of the other positions on the phenyl ring, such that there are multiple electron withdrawing groups on the phenyl ring. One of ordinary skill in the art would have been motivated to do so by Grushin's teachings that more than one fluorine or fluorinated substituent may be provided on a phenylpyridine ligand.

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1, 3-8, 12-17, 19, 21-38, 41-49, 52-61, 64-72, 76-81, 83 and 85-90 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7, 9, 13-20, 23, 24, 26, 29, 33, 37, 40, 41, 43 and 46 of copending Application No. 10/288,785. Although the conflicting claims are not identical, they are not patentably distinct from each other because there is substantial overlap between the subject matter of the present claims and the copending claims.

In addition, some of the present claims are generic for the subgenus of some of the copending claims (e.g. compare present claim 71 to copending claim 2). See *In re Braithwaite*, 379 F.2d 594, 154 USPQ 29 (CCPA 1967).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Applicant is advised that should claim 37 be found allowable, claim 38 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

11. Miscellaneous:

In the penultimate line of claim 1, “coordinatingcoordinatingcoordinated” needs correction/clarification.

The terminology used in claim 16 regarding the X-Y ligand is also grammatically confusing.

A period is missing at the end each of claims 29, 45, 65-68 and 88.

12. The prior art applied in this Office action is considered by the examiner to be the closest prior art with respect to what applicant appears to intend to claim, based on the specification.

Note, however, that given the uncertainty regarding the definition of R<sub>3</sub>, there is additional art which could be applicable. For example, Igarashi et al. (US 2002/0024293 A1) disclose compounds having H or F at the position corresponding to R<sub>3</sub>, and thus may or may not be within the scope of some of the present claims.

13. If a copy of a provisional application listed on the bottom portion of the accompanying Notice of References Cited (PTO-892) form is not included with this Office action and the PTO-892 has been annotated to indicate that the copy was not readily available, it is because the copy could not be readily obtained when the Office action was mailed. Should applicant desire a copy of such a provisional application, applicant should promptly request the copy from the Office of Public Records (OPR) in accordance with 37 CFR 1.14(a)(1)(iv), paying the required fee under 37 CFR 1.19(b)(1). If a copy is ordered from OPR, the shortened statutory period for reply to

this Office action will not be reset under MPEP § 710.06 unless applicant can demonstrate a substantial delay by the Office in fulfilling the order for the copy of the provisional application. Where the applicant has been notified on the PTO-892 that a copy of the provisional application is not readily available, the provision of MPEP § 707.05(a) that a copy of the cited reference will be automatically furnished without charge does not apply.

14. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for Art Unit 1774 is (703) 872-9306 for all official faxes. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY  
September 17, 2004



MARIE YAMNITZKY  
PRIMARY EXAMINER

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